



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
DESA/HWSB/HWSS
2890, Woodbridge Avenue, Edison, NJ 08837

EXECUTIVE NARRATIVE

Case No. : 43255

Site: Standard Chlorine Jacobus Avenue

Number of Samples: 13 (Soil), 2 (Water)

Analysis: Dioxin (RFQ Reference # 1981.2)

SDG No.: BAQC1

Laboratory: Cape Fear Analytical

Sampling dates: 1/22/13-1/23/13

QAPP

HWSS #: Not available.

Contractor Document #: Not available.

SUMMARY:

Critical: Results have an unacceptable level of uncertainty and should not be used for making decisions. Data have been qualified "R" rejected.

Major: A level of uncertainty exists that may not meet the data quality objectives for the project. A bias is likely to be present in the results. Data has been qualified "J" estimated.

Minor: The level of uncertainty is acceptable. No significant bias in the data was observed.

Critical Findings:

Dioxin : None.

Major Findings:

Dioxin : Sample BAQC6 has analytes that have been qualified "J".

Minor Findings:

Dioxin : None.

COMMENT: None

Reviewer Name(s): Raxa J. Shelley

Approver's Signature:

Date: 03/26/13

Name: Russell Arnone

Affiliation: USEPA/R2/HWSB/HWSS



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Data Qualifier Definitions (National Functional Guidelines)			
Qualifier Symbol	Explanation		
	INORGANICS	ORGANICS	CHLORINATED DIOXIN/FURAN
U	The analyte was analyzed for, but was not detected above the level of the reported quantitation limit.	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method	The analyte was analyzed for but not detected. The value preceding the "U" may represent the adjusted Contract Required Quantitation Limit (see DLM02.X, Exhibit D, Section 1.2 and Table 2), or the sample specific estimated detection limit (EDL, see Method 8290A, Section 11.9.5).
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to an issue with the quality of the data generated because certain QC criteria were not met, or the concentration of the analyte was below the adjusted CRQL).
J+	The result is an estimated quantity, but the result may be biased high.		
J-	The result is an estimated quantity, but the result may be biased low.		
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.	The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.	The analyte was not detected (see definition of "U" flag, above). The reported value should be considered approximate.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
N		The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".	
NJ		The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	
C		This qualifier applies to pesticide and Aroclor results when the identification has been confirmed by Gas Chromatograph/Mass Spectrometer (GC/MS).	
X		This qualifier applies to pesticide and Aroclor results when GC/MS analysis was attempted but was unsuccessful.	



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DATA ASSESSMENT

ANALYSIS: DIOXIN

The current SOP HW-19 (Revision 1.1) December 2010, USEPA Region II Data Validation SOP for evaluating organic data has been applied.

Sample identification:

The following detected target analytes do not satisfy all method defined criteria (Ion Abundance Ratios) and have been reported as Estimated Maximum Possible concentration (EMPC):

Sample # BAQC2DL:
12378-PeCDD

Sample # BAQC6DL:
12378-PeCDD, 123478-HxCDD

Sample # BAQC7DL:
12378-PeCDD, 123478-HxCDD

Sample # BAQC8DL:
123478-HxCDD, 123789-HxCDD

Sample # BAQC9:
123678-HxCDD, 2378-TCDF

Sample # BAQD0:
123678-HxCDD, 123789-HxCDD

Sample # BAQD2:
123789-HxCDD

Sample # BAQD3DL:
2378-TCDD, 123789-HxCDF

Sample # BAQD4:
1234678-HpCDD

Sample # BAQD5:
1234678-HpCDF

LAB METHOD BLANK – DFBLK22:
12378-PeCDD, 12346789-OCDD



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LAB METHOD BLANK – DFBLK23:
12378-PeCDD, 123789-HxCDD, 1234678-HpCDD, 123678-HxCDF

LAB METHOD BLANK – DFBLK24:
1234678-HpCDD

Method Blank Contamination:

Reported analyte concentration in the sample is less than 5 times the concentration of the analyte in the method blank. Reported analyte concentration has been reported as Estimated Maximum Possible concentration (EMPC):

Sample # BAQC9:
12378-PeCDD

Sample # BAQD1:
12378-PeCDD

Sample # BAQD2DL:
12378-PeCDD

The following detected target analytes are co-eluting with Polychlorinated diphenyl ether and have been reported as Estimated Maximum Possible concentration (EMPC):

Samples # BAQC1, BAQC3, BAQC4, BAQC4DL, BAQC5, BAQC5DL, BAQC6, BAQC7DL, BAQC8DL, BAQD2:
12378-PeCDF, 123678-HxCDF

Samples # BAQC1DL, BAQC2, BAQC6DL, BAQD0, BAQD1, BAQD2DL, BAQD3DL:
123678-HxCDF

Sample # BAQC7:
12378-PeCDF, 123478-HxCDF, 123678-HxCDF

Sample # BAQC8:
12378-PeCDF, 123478-HxCDF

Sample # BAQD3:
123478-HxCDF

The following detected target analytes do not satisfy all method defined criteria (Quantitative Interference) and have been reported as Estimated Maximum Possible concentration (EMPC):

Sample # BAQC2:
1234678-HpCDF, 12346789-OCDF

Samples # BAQC7, BAQC8, BAQD3:
123789-HxCDF



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OTHER PROBLEMS:

Sample # BAQC6DL:

12346789-OCDF was reported at levels over the calibration range and has been qualified J.

DILUTIONS, RE-EXTRACTIONS & REANALYSIS:

Samples may be reanalyzed after dilution, re-extraction and for other QC reasons. In such cases, the best result values are consolidated in one single report and the other report is marked as not to be used. The following Form 1(s) are not used:

BAQC1DL, BAQC2DL, BAQC3DL, BAQC4DL, BAQC5DL, BAQC6DL, BAQC7DL, BAQC8DL, BAQD2DL, BAQD3DL